



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,223	11/26/2003	Jean-Francois Savaria	86267-39	5690

7590 11/06/2007
Stephan P. Georgiev
SMART & BIGGAR
Suite 3400
1000 de la Gauchetiere Street West
Montreal, QC H3B 4W5
CANADA

EXAMINER

CREPEAU, JONATHAN

ART UNIT	PAPER NUMBER
----------	--------------

1795

MAIL DATE	DELIVERY MODE
-----------	---------------

11/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/721,223

Applicant(s)

SAVARIA ET AL.

Examiner

Jonathan S. Crepeau

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-20 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This Office action addresses claims 1-4 and 6-20. The rejection over WO '574 has been obviated by the inclusion of the new limitation "rigid" into claim 1. However, the rejections of claims 1-4, 6-14, and 16-20 over Greenbaum et al. and Kelly are maintained for the reasons of record. Additionally, claims 1-4, 14, 15, 18, and 20 are subject to a new ground of rejection as necessitated by amendment. Accordingly, this action is made final.

Claim Rejections - 35 USC § 102

2. Claims 1-4, 14, 15, 18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 01/66433. Yamashita (U.S. Patent 6,761,994) is taken as an English equivalent of WO '443. Yamashita '994 teaches a casing (5p) for a battery comprising a structural shell (11) and an inner lining (12, 13, 14, 15) which comprises a laminate of at least two synthetic materials (see Figs. 3 and 4). Regarding claim 18, the shell may be made of two layers, one comprising PET (see col. 9, line 29). Regarding claim 1, the other layer would function as a "reinforcing" layer. The shell is inherently "rigid" since it is reinforced and capable of being embossed (see col. 6, line 44). Regarding claim 1, the aluminum layer (12) of the liner is disclosed as being impervious to moisture (see col. 9, line 62). It is submitted that the aluminum layer is also inherently impervious to oxygen as recited in claim 1 (the instant specification at [0032] expressly discloses aluminum foil as being useful for the liner). It is also asserted that the liner

as whole (comprising all layers between 12 and 15) would inherently be impervious to oxygen and humidity. Regarding claim 14, the battery comprises a cover (5t), which is mounted on the shell. The cover is heat sealed to the shell (see column 6, line 43). Regarding claim 15, although the reference does not teach that the cover is affixed to the shell by a welding operation, this is a process limitation that is not seen to distinguish the claimed product over the product disclosed by Yamashita. The "heat sealed" product of Yamashita does not possess a structure different than that resulting from a welding operation as recited in claim 15, and as such, the claim is met by the reference. See MPEP 2113.

3. Claims 1-4, 6, 7, 18, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Greenbaum (U.S. Patent 5,022,555). The reference is directed to a container for holding a liquid. The container is capable of holding an energy storage device and therefore meets this limitation in the preamble of claim 1. The casing is formed from a multi-layer structure as best shown in Figs. 1-6. A carrier film (16) is wrapped around PVC piping (12) to form an inner liner (18) of the container (see col. 2, line 44 et seq.). A barrier film (20) is then formed on the outside of the carrier film and may also be considered to be part of the claimed lining. A further layer of carrier film (16) is then formed thus creating a shell (22). Regarding claim 6, the shell may be reinforced with piping (24) to create ribs on the outside thereof. The inner lining may comprise a laminate of two synthetic materials having moisture and humidity barrier properties (see col. 3, line 1). Regarding claim 4, the laminates may include metallized films (see col. 5, line 50).

Regarding claims 1 and 7, the shell may comprise adhesive layers reinforced with glass frit additives (see col. 5, line 39). Regarding claim 18, the shell may comprise polyethylene (see col. 4, line 30) or epoxy (see col. 5, line 18).

Thus, the instant claims are anticipated.

4. Claims 1, 7, 14, 16, 17, 19, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kelly (U.S. Patent 4,778,074). The reference teaches a casing for a battery comprising a structural shell (2, 4) and an inner lining (32) joined to the inner surface of the shell (see Fig. 2). A cover (6) is sealed to the top of the container, which cover contains electrical connectors (12, 14) for connecting to the battery inside the container. The shell and the cover may comprise a graphite/epoxy thermoset material (see col. 1, line 42). The liner comprises stainless steel (see col. 1, line 40) and is thus impervious to oxygen and humidity. The cover includes a reinforcement metallic portion (32) lined with the composite material (6).

Thus, the instant claims are anticipated.

Claim Rejections - 35 USC § 103

5. Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenbaum.

The reference is applied to claims 1-4, 6, 7, 18, and 19 for the reasons stated above.

However, the reference does not expressly teach that the structural shell is made of a molded plastic material reinforced with a plurality of discrete metallic portions, as recited in claim 8.

However, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the recitation of discrete metallic portions is not considered to patentably distinguish over the reference. As stated above, Greenbaum teaches that the layers of the lining and/or shell may comprise metallized films. Although the specific implementation and configuration of the metallized films is not disclosed by Greenbaum, it would be well within the skill of the art to use "discrete portions" as opposed to a continuous portion when constructing the container of Greenbaum. In general, it has been held that making elements separable is matter of design choice to one skilled in the art absent evidence to the contrary (MPEP 2144.04). Further, the specific configurations recited in claims 9-13 are not considered to distinguish over the reference. These claims recite a molded structure, an embedded structure, and a fastening structure comprised of perforations in the metal and mating projections in the plastic. Each of these structures would be obvious to a person of skill in the art, since the artisan would be sufficiently skilled to adhere the metal layer to other layers by any means known, including molding, embedding, and fastening with perforations. As such, none of the claimed structures is seen to patentably distinguish over Greenbaum.

Response to Arguments

6. Applicant's arguments filed September 4, 2007 have been fully considered but they are not persuasive. Regarding the Greenbaum reference, Applicants state that the container 26 of the reference is permeable to water because it is perforated. However, it is pointed out that the perforation feature of Greenbaum exists on only one embodiment (Fig. 8), and other

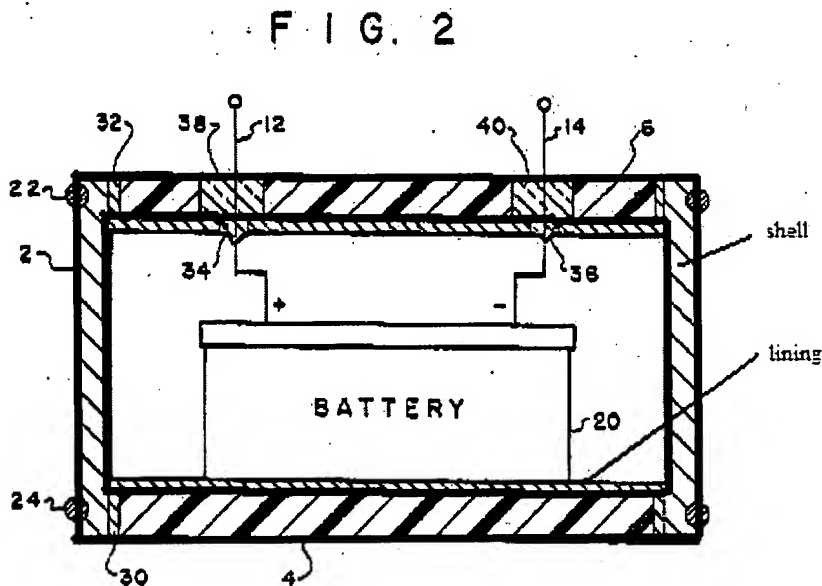
embodiments (i.e., Fig. 6) do *not* include the perforation feature. Accordingly, it is maintained that Greenbaum does in fact teach liner that is impervious to oxygen and humidity. Further, it is maintained that the casing as a whole is suitable for containing an energy storage device as recited in claim 1.

Regarding the rejection of claim 8 over Greenbaum, Applicants state that "[a] person skilled in the art would understand that metallized film used for the purpose of reflecting radiation is a thin sheet or film of metal that does not provide reinforcement to the material on which it is applied." In response, it is submitted that such a film does in fact provide a reinforcing function. In general, it is asserted that any material applied to any other material would inherently "reinforce" the base material. The term "reinforce" is broad and can be interpreted as requiring an increase in almost any type of strength measurement or other parameter. As such, the use of a metallized film in Greenbaum would provide the claimed reinforcement function.

Applicants further assert that "providing the metallic film of Greenbaum in discrete portions rather than as a single film would defeat the stated purpose of reflecting radiation, because the gap between the discrete portions would allow radiation to pass through unreflected." However, as Greenbaum does not explicitly teach any particular structure of the metallized film, the position is maintained that it would be obvious to employ the film in discrete, relatively large portions. It is submitted that the artisan would understand that providing *any* amount of the metallized film would be beneficial towards the stated purpose of reflecting radiation. Accordingly, providing a metallized film in large discrete portions would provide an improvement in reflecting radiation as compared to the structure of Greenbaum which

does not comprise any metallized films. Thus, it is believed that the claimed structure of "discrete portions" is obvious over Greenbaum.

Regarding the Kelly reference, Applicants state that the shallow cup (32) cannot be considered to be both the liner and the reinforcement of the shell. In response, it is maintained that the portion of the cup that lies within the three-dimensional space of the shell can be characterized as a reinforcement of the shell. The Examiner's interpretation of the claimed "lining" and "shell" is shown in the following annotated drawing from Kelley:



As can be seen in the drawing, the end portions of the "cups" 30, 32 are located within the "shell," the cross-section of which is denoted by the thick black line. As such, the different portions of the disclosed cups are believed to meet the claim limitations requiring a "lining" and a "reinforced" plastic.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Crepeau whose telephone number is (571) 272-1299. The examiner can normally be reached Monday-Friday from 9:30 AM - 6:00 PM EST.

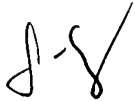
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan, can be reached at (571) 272-1292. The phone number for the organization where this application or proceeding is assigned is (571) 272-1700. Documents may be faxed to the central fax server at (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Application/Control Number:
10/721,223
Art Unit: 1795

Page 9

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jonathan Crepeau
Primary Examiner
Art Unit 1795
November 5, 2007